

Appl. No. 10/705,572
Docket No. 8681RCR
Amtd. dated 26 November 2007
Reply to Office Action mailed on 2 July 2007
Customer No. 27752

REMARKS

Claim Status

Claims 1-3, 5-9, and 11-18 are pending in the application, all of which are rejected. Herein, Applicants amend Claims 7, and 13-15; cancel Claims 1-3, 5-6, and 16; and add Claims 19-25; WHEREUPON Claims 7-9, and 11-15, 17-25 remain to be examined. The application contains 2 independent claims and 17 total claims. No additional claims fees are believed to be due.

Claims 7 and 13 are amended to more particularly point out and distinctly claim the subject matter which Applicants regard as their invention by indicating preferred characteristics of the filter particles and by indicating that the filter is operable to remove microorganisms. Claims 7 and 13-15 are amended to correct grammar and punctuation. Basis for the amendments may be found in the original claims and specification.

Claims 1-3, 5-6, and 16 are cancelled without prejudice.

It is believed these changes do not involve any introduction of new matter. Consequently, entry of these changes is believed to be in order and is respectfully requested.

Alleged Obviousness over Koslow in view of "Applicants Admission of Prior Art"

Claims 7-9, 11-13, and 17-18 are rejected under 35 USC §103(a) as allegedly being unpatentable over USPN 6,630,016 ("Koslow") in view of "Applicants admission of prior art". Applicants respectfully traverse the rejection as applied to the amended claims for the reasons set forth below.

The Office Action states that Koslow teaches a filter device comprising a cartridge containing filter material comprising activated carbon filter particles coated with silver for purifying water containing bacteria. The Action also states that Applicants describe known mesoporous and basic activated carbon powder known as Nuchar RGC, wherein the RGC has a BRI of about 99.91% and a VRI of about 99.996%. The Action asserts that it would have been obvious to the skilled person to substitute mesoporous activated

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carbon particles or mesoporous and basic activated carbon particles for the [microporous] activated carbon structure of Koslow for greater bacteria and virus removal capability.

Applicants submit that as an initial matter, the Office Action mischaracterizes the bacterial and viral removal data (F-BLR and F-VLR, respectively) provided in the specification by Applicants. These data, are experimental results which were determined by Applicants. This data was not known in the art prior to Applicants conducting experiments to generate such data. As such, it is not proper to characterize this data as being part of the prior art, and the inclusion of these experimental results by Applicants in their specification cannot properly be construed as an admission of the prior art.

Koslow discloses a filter comprising, among other things, a filter medium comprising: (a) a microporous structure comprising active particles; and (b) a microbiological interception enhancing agent comprising a cationic material plus a biologically active metal (col. 1, lines 29-64). Importantly, the structure is described as being microporous in that it has a mean free flow path of less than about 2000 nm (col. 1, line 32; col. 3, lines 42-44), i.e. it has a microporous inter-particle pore volume. In contrast, Applicants filter comprises, among other things, a filter material formed at least in part from a plurality of filter particles consisting of mesoporous activated carbon, where the sum of the sum of the mesopore and macropore volumes of the filter particles is between about 0.2 mL/g and 2 mL/g; wherein mesopore means an intra-particle pore having a diameter between 2 nm and 50 nm, and macropore means an intra-particle pore having a diameter greater than 50 nm. Koslow is void of any mention, teaching, suggestion, or motivation to use activated carbon as recited in Applicants claims in a filter for providing potable water, let alone in a filter operable to remove microorganisms.

Koslow's deficiency is not remedied by making reference to the microbial reduction values of certain mesoporous carbon, e.g. Nuchar RGC, provided by the Applicants in the specification. As argued above, Applicants determined these values as the result of experimentation, as such, a person of ordinary skill in the art would not have had this knowledge available to them at the priority date.

Furthermore, Applicants submit that they have surprisingly found that mesoporous activated carbon, as claimed, is useful in the removal of bacteria and viruses from water. Applicants demonstrate this, e.g. in the results shown in Figures 7a and 7b, where the

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performance of a filter according to the invention (mesoporous RGC) is compared to that of a conventional filter (microporous coconut). As can be seen in Fig. 7a, the inventive filter is effective in removing *E. coli* for about 240 L of cumulative water volume, whereas the conventional filter fails at less than 40 L. As can be seen in Fig. 7b, the inventive filter is effective in removing MS-2 for about 80 to 100 L of cumulative water volume, whereas the conventional filter fails at less than 20 L. As demonstrated, all activated carbons are not alike, and cannot simply be interchanged with a reasonable expectation of success.

For these reasons, Applicants submit that the obviousness rejections, as applied to the amended claims, is improper and should be withdrawn.

Alleged Obviousness over Koslow in view of "Applicants Admission of Prior Art" in further view of Jagtoyen

Claims 14-15 are rejected under 35 USC §103(a) as allegedly being unpatentable over Koslow in view of "Applicants admission of prior art" in further view of US Pub 2004/0040906A1 ("Jagtoyen"). Applicants respectfully traverse this rejection as applied to the amended claims for the reasons set forth below.

The Office Action states that Jagtoyen teaches a package for containing the filter comprising a housing, comprising filter material of activated carbon and information that describes the use of the filter for the removal of pathogens, particularly viruses. The Action asserts that it would have been obvious to the skilled person to modify Koslow's filter in view of "Applicants admission of prior art" to pack the filter in a package containing useful information regarding the virus removal capability of the filter to inform the user about the benefits and importance of the filter.

Applicants renew their argument above as it relates to Koslow and the alleged "admission of prior art". Applicants submit that Koslow's deficiency is not remedied by the teachings of Jagtoyen, and that Claims 14-15 are non-obvious, at least by virtue of their dependence on Claims 7 and 13, respectively, which each claim a filter comprising, among other things, a filter material formed at least in part from a plurality of filter particles consisting of mesoporous activated carbon, where the sum of the sum of the

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mesopore and macropore volumes of the filter particles is between about 0.2 mL/g and 2 mL/g; wherein mesopore means an intra-particle pore having a diameter between 2 nm and 50 nm, and macropore means an intra-particle pore having a diameter greater than 50 nm.

For these reasons, Applicants submit that the obviousness rejection, as applied to the amended claims, is improper and should be withdrawn.

Conclusion

This response represents an earnest effort to place the present application in proper form and to distinguish the invention as claimed from the applied reference(s). In view of the foregoing, entry of the amendments presented herein, reconsideration of this application, and allowance of the pending claim(s) are respectfully requested.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is kindly invited to telephone the undersigned attorney.

Respectfully submitted,

THE PROCTER & GAMBLE COMPANY

By 

Signature

Andrew A Paul

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